AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings includes changes to Fig. 1b) to include the reference symbol 7" and Fig. 2 to remove the reference symbols B, B".

Attachment: Replacement sheets

REMARKS

Claims 1, 3, 5, and 8 are currently pending, wherein claims 1, 3, and 5 have been amended, claims 2, 4, 6, and 7 have been canceled, and new claim 8 has been added. Applicants respectfully request favorable reconsideration in view of the remarks presented herein below.

In paragraph 1 of the Office Action ("Action"), the Examiner asserts that the Information Disclosure Statement filed on April 28, 2005 fails to comply with 37 CFR § 1.98(a)(2). Therefore, the Examiner has not considered the information referred to therein. Applicants note, that a copy of the documents not considered by the Examiner were not supplied with the IDS because they were previously cited by or submitted to the Office in a prior application (i.e., PCT/JP2003/013629). Accordingly, copies of these documents should have been provided by the International Bureau and it is not necessary for Applicants to provide copies. As to WO 02/47246 A, attached herewith is a copy of this reference. The Examiner is now requested to make this reference of record. As to the three "Non-Patent Literature Documents", subsmitted herewith is an Information Disclosure Statement with a copy of JP 3-269365 and an English abstract thereof (which corresponds to the "Patent Abstracts of Japan" reference). Copies of the other two documents are not currently available to the undersigned.

In paragraphs 2-3 of the Action, the Examiner objects to the drawings because of various reference symbols which are either missing from the drawings or the specification. Applicants hereby amend Fig. 1b) to include the reference symbol 7", and Fig. 2 to remove the reference symbols B, B", thereby addressing the Examiners concerns.

In paragraph 4 of the Action, the Examiner objects to claim 6 under 37 CFR § 1.75(c) as being in improper form. Applicants hereby cancel claim 6, rendering this objection moot.

In paragraph 6 of the Action, the Examiner rejects claims 1-4 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,748,807 to Yoshiuchi et al. ("Yoshiuchi") in view of U.S. Patent No. 6,647,778 to Sparks ("Sparks"), further in view of U.S. Patent No. 6,651,488 to Larson, III et al. ("Larson"). Claims 2 and 4 have been canceled, rendering this rejection moot with regard thereto. Regarding claims 1 and 3, Applicants respectfully traverse this rejection.

In order to support a rejection under 35 U.S.C. § 103, the Examiner must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three criteria must be met. First, there must some motivation to combine the cited references. Second, there must be a reasonable expectation of success. Finally, the combination must teach each and every claimed element. In the present case, claims 1-4 are not rendered unpatentable by the combination of Yoshiuchi, Sparks, and Larson because the Examiner fails to establish a *prima facie* case of obviousness as discussed below.

Independent claim 1 defines a method for preventing signal coupling between two or more chip-based mounted piezoelectric resonator sensors used in an electrically conductive flow-through liquid sensor system. The method includes, *inter alia*, providing each sensor with its own, individual conducting shield which substantially surrounds the flowcell body of the sensor and is connected to one pole of the power supply. In addition, the inner wall of the flow tube connecting each cavity is made of a non-conducting material.

In rejecting claim 1, the Examiner asserts that it would have been obvious to one skilled in the art "to combine the flowcell body of Sparks and the multiple sensor arrangement of Larson, III et al. with the piezoelectric sensor of Yoshiuchi et al. for the benefit of creating a

more versatile device, capable of being used with fluids, and to create a sensors system with redundancy." To support this assertion, the Examiner points to column 9, lines 43-46 of Larson. The Examiner is requested to reconsider this rejection for the following reasons.

First, although Larson discloses a thin film deposition sensor that may include redundant pairs of acoustical resonators, nowhere in Larson, or the other cited references, is there any disclosure or suggestion of modifying the inertia sensor of Yoshiuchi or acoustical sensor of Larson to include a flowcell. The Examiner asserts that one skilled in the art would have been motivated to modify the inertia sensor of Yoshiuchi to include a flowcell in order to provide the capability of being used with liquids. However, Yoshiuchi teaches away from such a modification for at least the reason that the sensor of Yoshiuchi is designed to be used in imaging apparatuses, such as video cameras, not liquid-phase applications.

Second, even if the inertia sensor of Yoshiuchi could be modified to be used in a liquid-phase system, the mere fact that references can be combined or modified does not in and of itself render the resultant combination obvious absent some evidence of the desirability of the proposed modification. In the present case, the Examiner merely asserts that it would have been obvious to modify the sensor of Yoshiuchi in order to provide liquid-phase capability. However, the Examiner provides no evidence or support for the desirability of such a modification. Accordingly, absent proper motivation, the rejection of claim 1 is improper.

Furthermore, even if one skilled in the art were motivated to combine Yoshiuchi, Sparks, and Larson, the combination would still fail to render claim 1 unpatentable because the combination fails to disclose each and every claimed element. The combination of Yoshiuchi, Sparks, and Larson fails to disclose or suggest providing a conducting shield which substantially

surrounds the flowcell body of each sensor and is connected to one pole of the power supply as claimed. At best, the combination only discloses a shield plate 8 which is used to hermetically seal the quartz oscillator 7 within the second case 6. However, this shield plate 8 does not surround the flowcell body. Accordingly, independent claim 1 is patentable over the combination of Yoshiuchi, Sparks, and Larson for at least the reason that the combination fails to disclose each and every claimed element.

Claim 3 depends from independent claim 1. Therefore, claim 3 is patentable over the combination of Yoshiuchi, Sparks, and Larson for at least those reasons presented above with respect to claim 1. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-4 under 35 U.S.C. § 103.

In paragraph 11 of the Action, the Examiner rejects claims 5-7 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yoshiuchi in view of Sparks. Claims 6 and 7 have been canceled, rendering this rejection moot with regard thereto. Regarding claim 5, Applicants respectfully traverse this rejection.

Again, as discussed above, in order to support a rejection under 35 U.S.C. § 103, the applied combination must teach each and every claimed element. In the present case, independent claim 5 is not rendered unpatentable by the combination of Yoshiuchi and Sparks for at least the reason that the combination fails to disclose or suggest a piezoelectric resonator that includes a body substantially surrounded by a conducting shield, said shield being connected to one pole of a power supply, wherein an inner wall of a cavity, an inlet channel, and an outlet channel are insulated by said shield. (See discussion above with respect to claim 1.)

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 5 under 35 U.S.C. § 103.

The application is in condition for allowance. Notice of same is earnestly solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Penny Caudle (Reg. No. 46,607) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: September 12, 2006

Respectfully submitted,

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Attachments: Replacement Sheets of Drawings – Two (2)
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